Brynn Kelly

Randa Olson

Learning Model Comparative Article

Discovery Learning

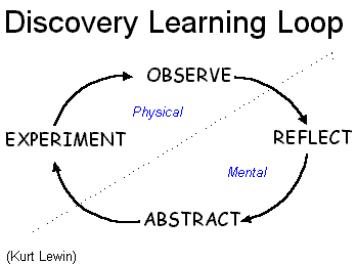
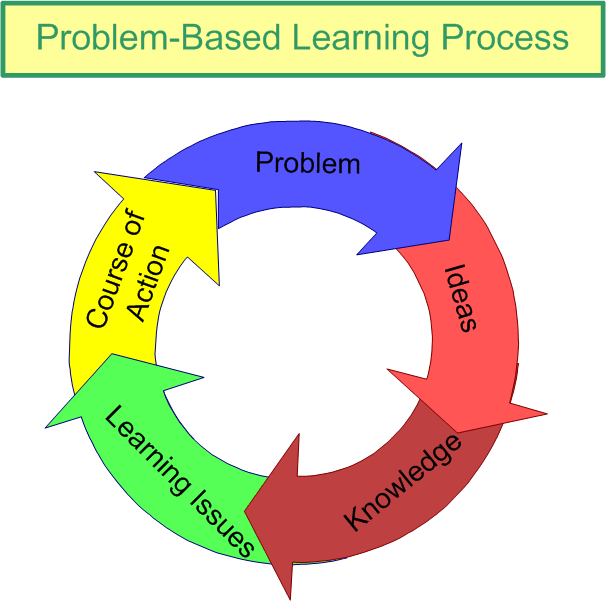
Discovery learning is a method of inquiry-based instruction that takes place in a problem solving situation. In discovery learning, the learner is organizing what he/she is encountering and constructing new learning with the experiences. The process begins when an individual encounters a problem and has a desire to fix the problem, or find a solution. The first step in this learning cycle is experimentation. The learner can draw upon past experiences, interact with their environment by exploring and manipulating objects, or grapple with questions and controversies in an effort to find a solution. An individual will experiment with potential solutions and then encounter the next step in the cycle, which is observation. The individual takes a moment to observe and see if any of the past experimentations solved the problem. After observation, the learner will take time to reflect on the experiments and observations and abstract new learning from the experiences. An important element of discovery learning is that it encourages students to learn at their own pace.

Problem Based Learning

Problem based learning is a constructivist learning model based on independent and self-directed learning. The teachers role in this model is to be a facilitator as well as a mentor introducing content through skill. The students role is to be an independent learner making their own learning objectives. The student identifies their what they already know, what they need to know, and what information they will need to solve the problem. The first step in this model is finding a problem to solve. The teacher usually assigns the student a problem. A successful learning environment in this model is where a student feels free to share their ideas and comments in a risk taking environment. After independent learning, group discussions are had where students explain and share their ideas about how to solve the problem. A few skills students use in problem based learning are: communication skills, teamwork, problem solving, sharing information and respect for others. Problem based learning gives students a real word hands on experience to learning.

Compare

Discovery learning and problem based learning are similar in many ways, in fact problem based learning is a model based upon discovery learning. In both models, students are expected to explore their environment to solve the problem at hand. Both models rely on students prior knowledge to guide them to new learning. One criticism of student-centered learning is that students cannot be expected to know what might be important for them to learn. This reinforces the importance of the teachers role as a facilitator.



|  |  |  |
| --- | --- | --- |
|  | **Problem Based Learning** | **Discovery Learning** |
| **Relative "student-centeredness"** | Very student centered. Students are self-directed independent learners. | The student is learning through their own personal discoveries. |
| **Assessment** | Self and Peer assessment | Self and Peer assessment |
| **21st Century Fluencies[http://www.fluency21.com/images/fluencies_med.png](http://www.fluency21.com/fluencies.cfm)** | Solution, Creativity, Collaboration, Media, Information | Solution, Creativity, Collaboration, Media, Information |
| **Ease of Use** | Easy to use as long as the teacher is acting as a facilitator and guiding the students. | Easy to use if you are an able student. Special needs students may need more guidance. |